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CERAMIC ABSTRACTS

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Compiled by
The American Ceramic Society
65 Ceramic Drive
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DECOMPOSITION OF M_G-PSZ

S. FARMER
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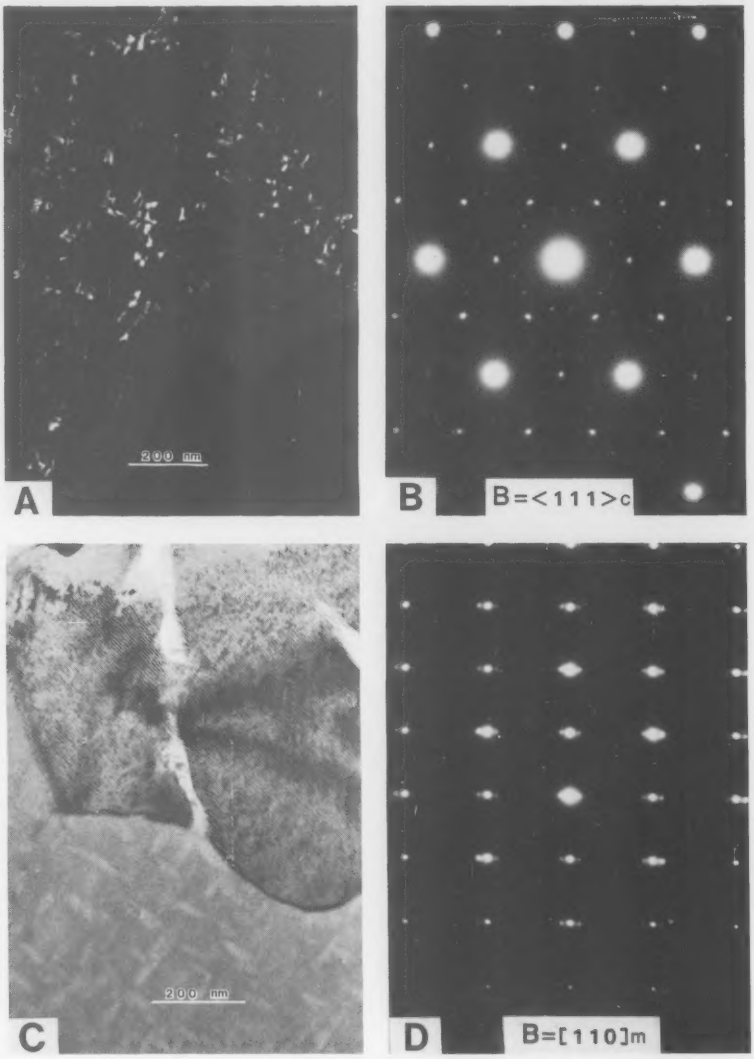

HEAT TREATING $MgO-ZrO_2$ ALLOYS AT 1100°C CAUSES NUCLEATION OF TETRAGONAL ZrO_2 AND A METASTABLE INTERMEDIATE PHASE, $Mg_2ZR_5O_{12}$ (Fig. A and B). HOWEVER THE PREDOMINANT DECOMPOSITION PRODUCT IS A EUTECTOID-DECOMPOSITION GRAIN BOUNDARY PHASE (Fig. C and D). THIS LATTER DECOMPOSITION PRODUCT DEVELOPS A PERIODIC MICROSTRUCTURE CONSISTING OF $m-ZrO_2$ AND A SECOND DEFECT-FLUORITE PHASE.

TEM

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